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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/718,882

11/20/2003

Christopher J. Cookson

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22440

7590

07/25/2006

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EXAMINER

DANIELSEN, NATHAN ANDREW

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/718,882

Applicant(s)

COOKSON ET AL.

Examiner

Nathan Danielsen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

#### **DETAILED ACTION**

1. Claims 1-21 are pending.

#### ***Drawings***

2. The drawings are objected to because: the output of buffer 132 in figure 2 lacks the appropriate label, such as the label "DATA OUT" shown in figure 3, and figure 11 has two elements both indicating that data from Side A is being sent to the processor when one should indicate that data from Side B is also being sent to the processor. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
4. The disclosure is objected to under 37 CFR 1.78(a)(2)(i) because of the following informalities: the listing of related applications contains only application titles without the corresponding application serial numbers. Appropriate correction is required.

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***Claim Objections***

5. Claim 2 is objected to because of the following informalities: the phrase "The method of claim 1 wherein said disc is provided with at least two data layer on one side further comprising" should be changed to --The method of claim 1, wherein said disc is provided with at least two data layers on one side, further comprising--. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite because it is unclear exactly what is meant by the phrase "viewed normally". Claims 2-9 are rejected as being dependent on an indefinite claim.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by the Applicant's admitted prior art (hereinafter the AAPA).

Regarding claim 10, the AAPA discloses a method of playing a double-sided optical disc, comprising:

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reading data from a first side (bottom of page 3 to top of page 4); and

reading data from the second side without turning said disc over (bottom of page 3 to top of page 4).

Regarding claim 11, the AAPA discloses where the method further comprises:

rotating the disc in a first direction to read data from a first side (bottom of page 3 to top of page 4); and

rotating the disc in a second direction to read data from a second side (bottom of page 3 to top of page 4).

10. Claims 10, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamauchi et al (JP Patent Application Publication 11-007669; hereinafter Yamauchi).

Regarding claim 10, the AAPA discloses a method of playing a double-sided optical disc, comprising:

reading data from a first side (§§s 17, 20, 22, and 26 and figures 1 and 3); and

reading data from the second side without turning said disc over (§§s 17, 20, 22, and 26 and figures 1 and 3).

Regarding claim 12, the AAPA discloses where the method of claim 10 further comprises:

reading data from a first side with a first laser head (§§s 17, 20, 22, and 26 and figures 1 and 3); and

reading data from a second side with a second laser head (§§s 17, 20, 22, and 26 and figures 1 and 3).

Regarding claim 13, Yamauchi discloses where the method of claim 12 further comprising rotating said disc in a first direction while said data is read from said first side and rotating said disc in said first direction while said data is read from said second side (§§s 17, 20, 22, and 26 and figures 1 and 3).

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***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Hisakado et al (US Patent 5,406,534; hereinafter Hisakado).

Regarding claim 1, Yamauchi discloses a method of reading from data on an optical disc having two sides comprising:

providing a disc with data disposed on tracks on respective sides (§§s 17 and 20 and figures 1 and 3);

rotating the disc (inherent for not damaging the disc recording/reproducing layers); and

reading the data from either side without stopping the rotation of the disc (§§s 17, 20, 22, and 26 and figures 1 and 3).

However, Yamauchi fails to disclose where the tracks are spiral in shape and are oriented differently depending on the side of the disc.

In the same field of endeavor, Hisakado discloses where the tracks on the disc are disposed along spirals, with the track on one side being disposed along a first spiral oriented in a first direction and the track on the other side being disposed along a second spiral oriented in a direction that is opposite to said first direction, as viewed normally from the respective sides (figure 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the disc of Hisakado in the apparatus of Yamauchi, for the purpose of simultaneously recording data on two sides of a disc (col. 2, lines 23-26).

Regarding claim 3, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claim 1. Additionally, Yamauchi discloses where the method further comprises reading the data

from both sides of the disc while the disc continues rotating in the same direction (§§ 17, 20, 22, and 26 and figures 1 and 3).

Regarding claim 4, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claim 1. Additionally, Yamauchi discloses where the method further comprises reading data from a first side and then reading data from the second side (§§ 35 and figures 1 and 3).

Regarding claims 5, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claims 1 and 10. Additionally, Yamauchi discloses where the method further comprises:

providing two laser heads, each laser head being disposed on along a respective side of the disc (figure 3); and

reading data from one side with one head and from the other side with the other head (§§ 17 and 22).

Regarding claim 6, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claim 5. Additionally, Yamauchi discloses where data is read in sequence from said first side and said second side (§§ 17, 22, and 35; where if the pickups can be controlled independently and on the basis of track addresses, they can be used to read/write sequentially from one side to another).

Regarding claim 7, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claim 6. Additionally, Yamauchi discloses where the method further comprises reading in a sequence on said tracks, the sequence starting on one side and ending on the opposite side (§§ 17, 22, and 35; where if the pickups can be controlled independently and on the basis of track addresses, they can be used to read/write sequentially from one side to another).

Regarding claim 8, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claim 1. Additionally, Yamauchi discloses where the method further comprises reading data with a single head (§§ 35).

13. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Hisakado, and further in view of Ito et al (US Patent 5,881,032; hereinafter Ito).

Regarding claim 2, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claim 1. However, Yamauchi, in view of Hisakado, fails to disclose where the disc has more than one data layer per side.

In the same field of endeavor, Ito discloses where the disc is provided with at least two data layer on one side (figures 3 and 4), further comprising reading the layers of said one side without switching over to the other side between layers (figures 1D and 2 indicate how the apparatus of figure 5 records on and reproduces from the multilayer discs of figures 3 and 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have read from multiple layers of a multilayer disc without switching to the other side to do so, as taught by Ito, for the purpose of enabling smooth, contiguous reproduction from one side to the other side using only one optical pickup and not turning the disc over (col. 4, lines 19-25 and 40-46 and figure 1).

14. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Hisakado, and further in view of Winter (US Patent 6,603,714).

Regarding claims 9 and 14-16, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claims 8 and 10. However, Yamauchi, in view of Hisakado, fails to disclose where the method further comprises switching said head from one side to the other without stopping the disc.

In the same field of endeavor, Winter discloses where the method further comprises switching said head from one side to the other without stopping the disc (col. 4, line 62 through col. 5, line 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have switched said head from one side to the other without stopping the disc, as taught by Winter, for the purpose of avoiding a reproduction interruption (col. 5, lines 1-5).



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15. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Winter.

Regarding claims 14-16, Yamauchi discloses everything claimed, as applied to claim 10. However, Yamauchi fails to disclose where the method further comprises switching said head from one side to the other without stopping the disc.

In the same field of endeavor, Winter discloses where the method of further comprises:  
reading data from a first side with a laser head;  
switching said laser head to a second side;  
rotating the disc in a single direction while the laser head is switched; and  
reading data from said second side with said laser head,  
wherein said disc is rotated continuously in a single direction while data is read from said first side and said second side and as said laser head is switched (all limitations found in col. 4, line 62 through col. 5, line 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have switched said head from one side to the other without stopping the disc, as taught by Winter, for the purpose of avoiding a reproduction interruption (col. 5, lines 1-5).

16. Claims 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Ito.

Regarding claim 17, Yamauchi discloses a method of reading data from a disc having a first side and a second side comprising:

reading data from the data layer of said first side (§§ 17, 20, 22, and 26 and figures 1 and 3);  
and  
reading data from said second side without turning said disc over (§§ 17, 20, 22, and 26 and figures 1 and 3).

However, Yamauchi fails to disclose where the disc has a first side with several data layers, and a second side with at least one data layer .

In the same field of endeavor, Ito discloses where the disc has a first side with several data layers, and a second side with at least one data layer (figures 1D and 2 indicate how the apparatus of figure 5 records on and reproduces from the multilayer discs of figures 3 and 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have read from multiple layers of a multilayer disc without turning the disc over, as taught by Ito, for the purpose of enabling smooth contiguous reproduction from one side to the other side using only one optical pickup and not turning the disc over (col. 4, lines 19-25 and 40-46 and figure 1).

Regarding claim 19, Yamauchi, in view of Ito, discloses everything claimed, as applied to claim 17. Additionally, Yamauchi discloses where the method further comprises rotating said disc in a predetermined direction as data is read from said first and said second sides (inherent when both layers are recorded/reproduced at the same time).

Regarding claim 20, Yamauchi, in view of Ito, discloses everything claimed, as applied to claim 17. Additionally, Yamauchi discloses where the method further comprises reading data from said first side with a first laser head and reading data from said second side with a second laser head (§§ 17, 20, 22, and 26 and figures 1 and 3).

17. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Ito, and further in view of the AAPA.

Regarding claim 18, Yamauchi, in view of Ito, discloses everything claimed, as applied to claim 17. However, Yamauchi, in view of Ito, fails to disclose where data is read from said first side while said disc is rotating in one direction and data is read on said second side while said disc is rotating in an opposite direction.

In the same field of endeavor, the AAPA discloses where data is read from said first side while said disc is rotating in one direction and data is read on said second side while said disc is rotating in an opposite direction (bottom of page 3 through top of page 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have rotated the disc in different directions based on the side to be reproduced, as taught by the AAPA, for the purpose of reproducing data from a double-sided disc without having to turn it over (middle of page 3 through top of page 4).

18. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Ito, and further in view of Winter.

Regarding claim 21, Yamauchi, in view of Ito, discloses everything claimed, as applied to claim 17. However, Yamauchi, in view of Ito, fails to disclose where the method further comprises reading data from said first side with a first laser, switching said laser to said second side and reading data from said second side with said first laser.

In the same field of endeavor, Winter discloses

In the same field of endeavor, Winter discloses where the method of further comprises:

reading data from a first side with a laser head;

switching said laser head to a second side; and

reading data from said second side with said laser head (all limitations found in col. 4, line 62 through col. 5, line 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have switched said head from one side to the other without stopping the disc, as taught by Winter, for the purpose of avoiding a reproduction interruption (col. 5, lines 1-5).

**Conclusion**

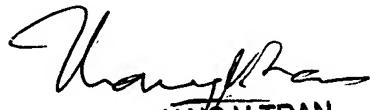
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 8:30 AM - 4:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A.L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathan Danielsen  
07/18/2006

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PRIMARY EXAMINER